7. Joyce

Program Name: Joyce.java   **Input File: joyce.dat**

A pangram is a sentence or expression that uses all the letters of the alphabet at least once. A perfect pangram is a sentence or expression that uses all the letters of the alphabet exactly once. The most well-known pangram is "The quick brown fox jumps over the lazy dog." Notice how every letter, either uppercase or lowercase, from A-Z was used at least once in the sentence. Joyce needs your help writing a program that first determines if the sentence is a pangram or not. If the sentence is a pangram, the program needs to determine if the pangram is perfect or not. If the sentence is not a pangram, your program should output the missing letters needed to make the sentence a pangram.

Input: Input begins with an integer N (1 <= N <= 20), the number of different test cases. Each of the following N lines will contain a word or sequence of characters made up of letters, numbers, symbols, and spaces.

Output: For each test case, your program is to output "perfect pangram" if and only if all 26 letters are used exactly once in the sentence, "pangram" if all letters were used at least once or more, or "missing …" all the letters that are missing and would be needed to make a pangram. All non-alphabetic characters are to be disregarded.

Sample Input:
```
7
The quick brown fox jumps over the lazy dog.
ZYXW, vu TSR Ponm lkj ihgfd CBA.
.,?!'" 92384 abcde FGHIJ
Mr. Jock, TV quiz PhD., bags few lynx.
My girl wove six dozen plaid jackets before she quit.
abcdefghijklmnopqrstuvwxyz
AbC...
```

Sample Output:
```
pangram
missing eq
missing klmnopqrstuvwxyz
perfect pangram
pangram
perfect pangram
missing defghijklmnopqrstuvwxyz
```